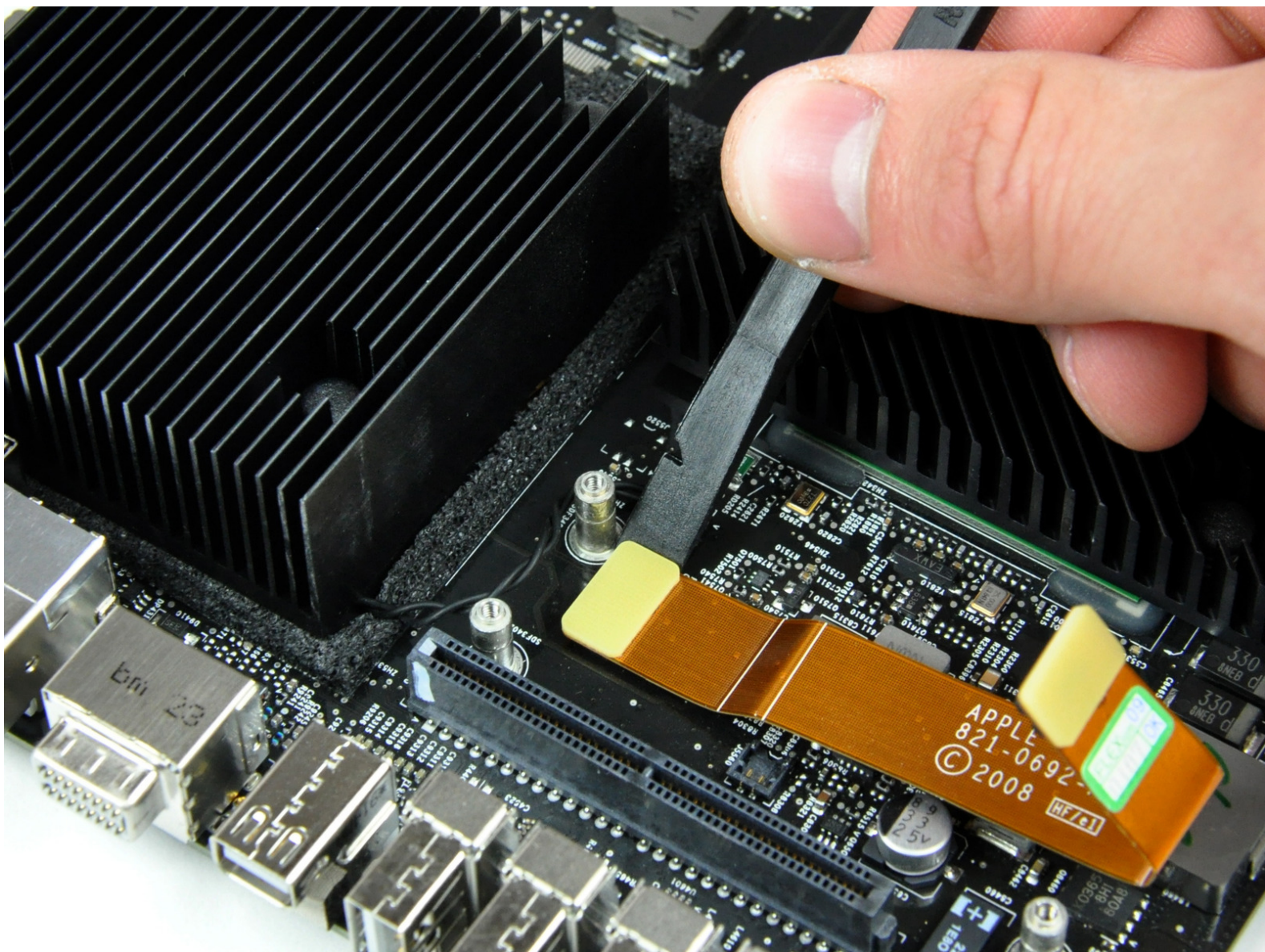




Mac mini Model A1283 Logic Board Replacement

Written By: Walter Galan



INTRODUCTION

This guide will show you how to replace the logic board.

TOOLS:

- [1.5" Thin Putty Knife](#) (1)
 - [Phillips #00 Screwdriver](#) (1)
 - [Spudger](#) (1)
 - [T10 Torx Screwdriver](#) (1)
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Step 1 — Top Housing



- You'll need a putty knife in order to open the case. A 1.5 inch thin putty knife will work well, but you'll want to grind the edge down. Rub the putty knife's short edge back and forth on a sheet of all purpose rough grit sandpaper (100 grit will work fine) until it attains a beveled edge.

Step 2



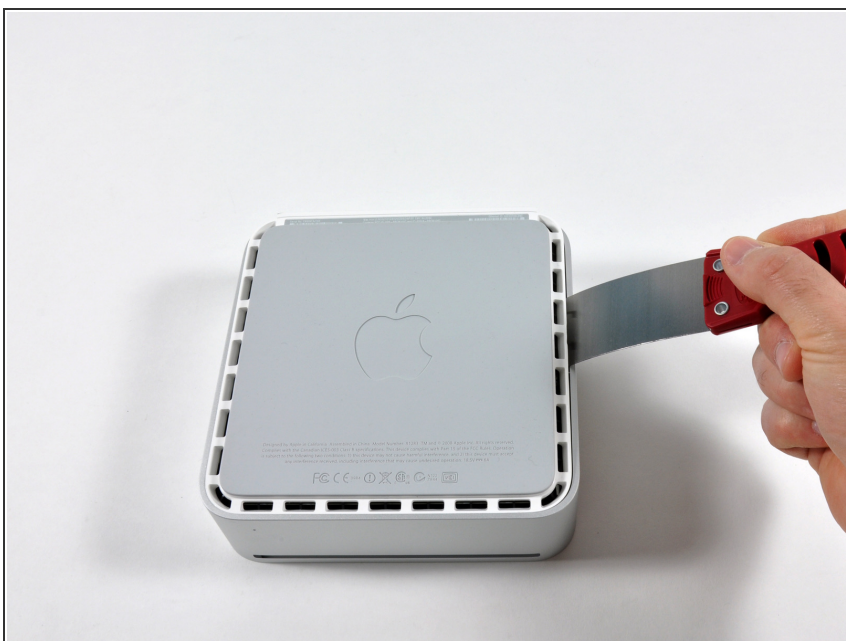
- Carefully insert a putty knife into the crevice in between the top cover and bottom housing. Start on the left side first. Push the blade down until you meet firm resistance (roughly 3/8 of an inch).
- Gently enlarge the existing crevice by rotating the putty knife downward and away from the mini.
- This is easier if you use two putty knives. Insert the first putty knife at the point on the left side where the gap is largest, press the handle of the knife downward and away from the mini.
- Then insert the second knife next to it and push that knife down and out.
- Take the first knife out of the mini and put it back in on the other side of the second knife, push down and out.
- Repeat this process all the way around the mini.

Step 3



- Repeat the prying motion until a portion of the bottom housing has been nudged upward.

Step 4



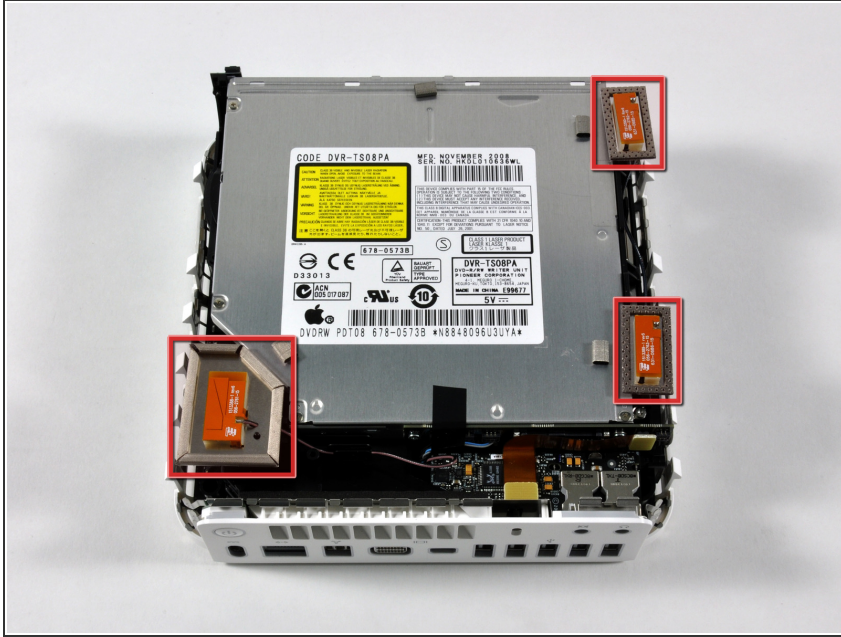
- Repeat the same prying procedure on the right side.

Step 5



- The top cover should now be marginally separated from the bottom housing. Use your fingers to completely separate the two, starting with the I/O side of the mini.

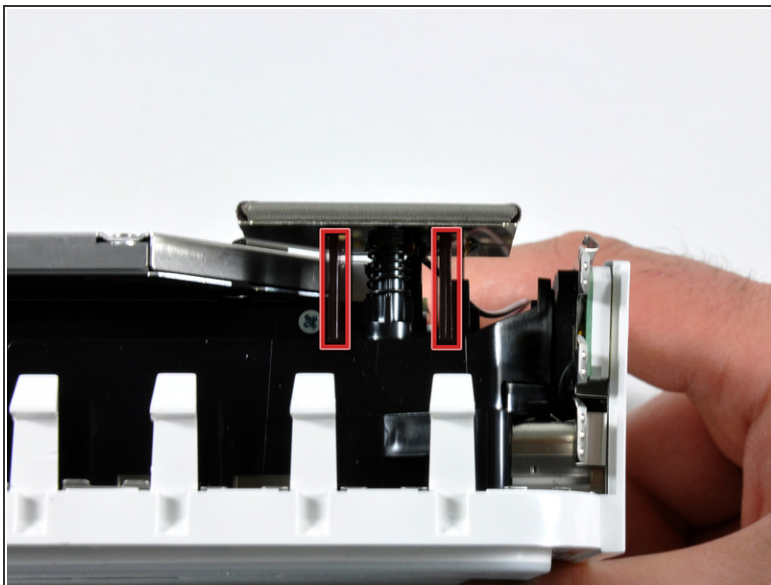
Step 6 — Internal Frame



⚠ In the next few steps you will be removing the AirPort and Bluetooth antennas (shown in red) from the internal frame. Be very careful, as breaking the brackets will require replacing the internal frame.

- We will first remove the AirPort antenna, located in the lower left corner of this picture.

Step 7

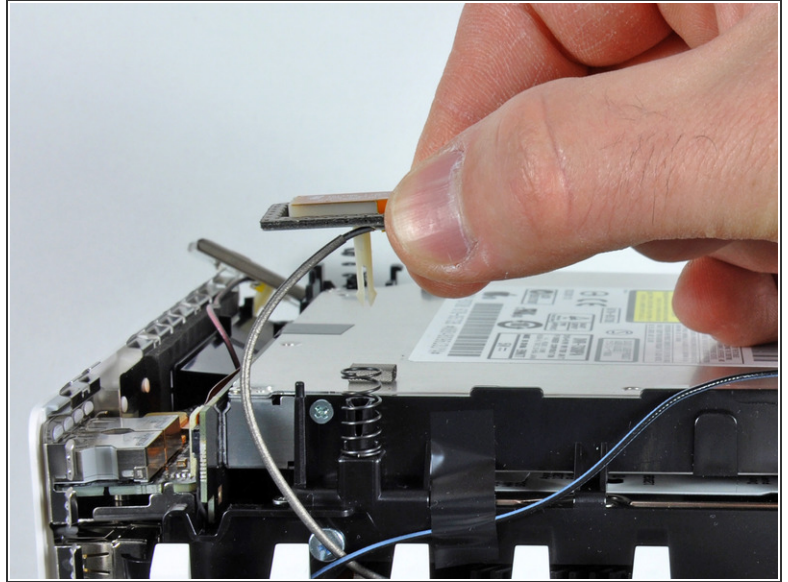
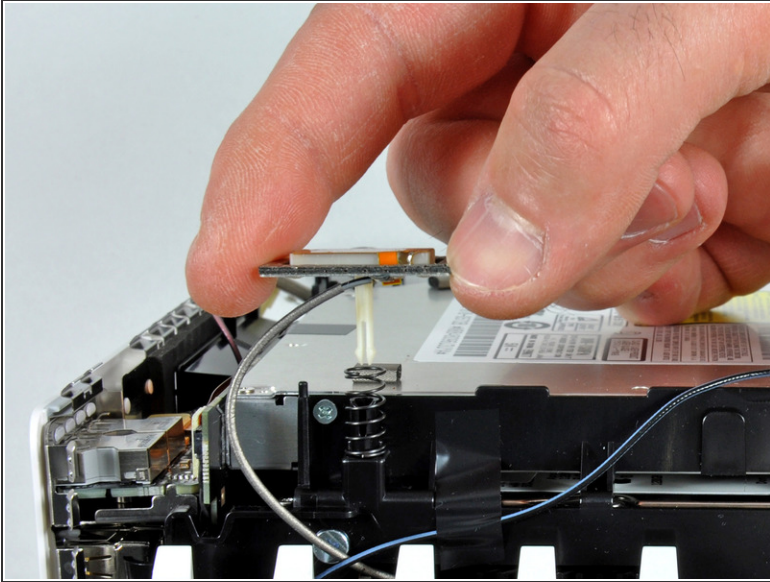


- Slightly squeeze the two retaining arms toward each other and lift the AirPort antenna off its post.

⚠ Squeezing the two posts excessively will surely break them off the internal frame. Work delicately.

- ☞ During reinstallation, you will have to slightly squeeze the two posts together so they fit into the openings on the AirPort antenna board.

Step 8

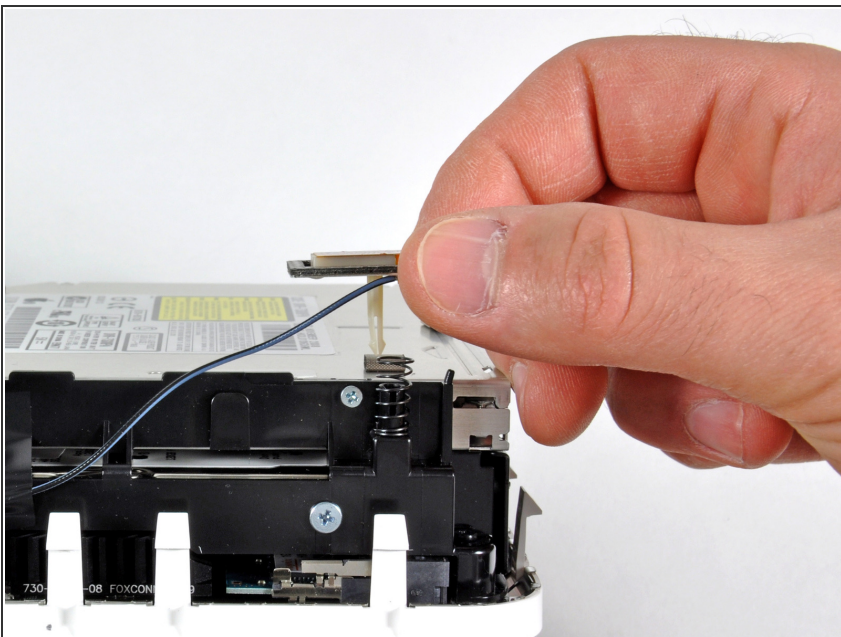


i The two Bluetooth antenna boards simply lift off the internal frame.

- Grab the Bluetooth antenna nearest the port side of the computer by the edges of the board and pull it straight up off the internal frame.

⚠ Pull carefully, as it may offer significant resistance and release suddenly.

Step 9



- Remove the antenna board near the front of the mini by pulling it straight up off the internal frame.

- If necessary, remove the piece of tape securing the antenna leads to the internal frame.

i Be sure to keep track of the springs under each of the three antenna boards.

Step 10



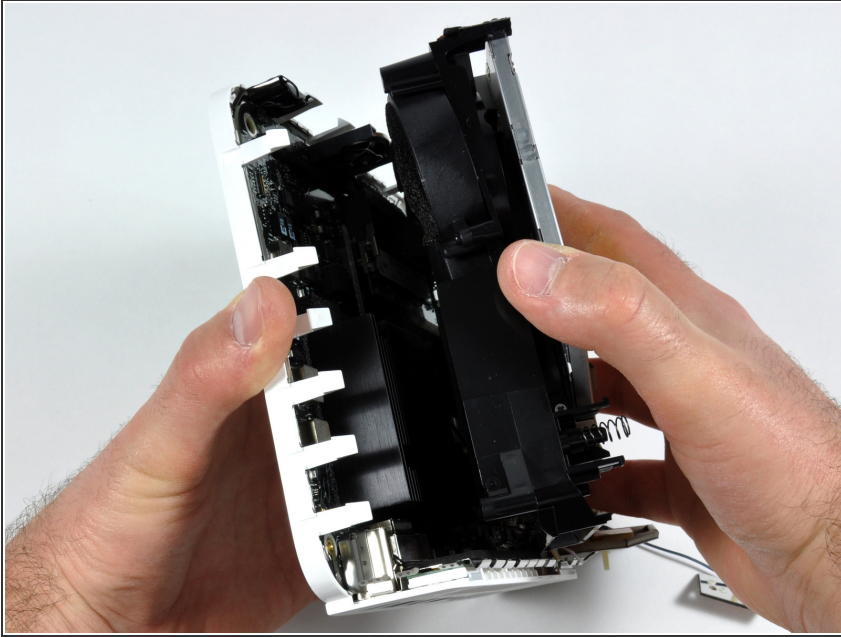
- Use the flat end of a spudger to pry the audio ribbon cable connector up off the audio board.

Step 11



- Remove the following four screws securing the internal frame to the bottom housing:
 - Three 6.7 mm Phillips #00 screws
 - One 9.5 mm Phillips #00 screw
- ⓘ The screw in the lower right corner of this image is recessed deep in the internal frame and longer than the other three screws. A flashlight and a thin screwdriver aid in removal.

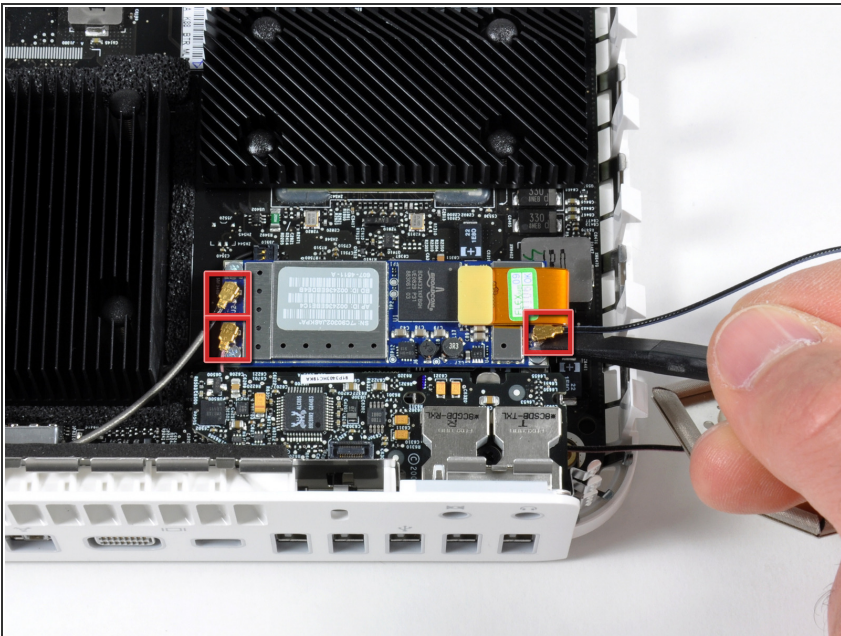
Step 12



- Lift the internal frame off the bottom housing, starting at the rear edge, until you feel the concealed edge connector on the motherboard disconnect. Then lift straight off, minding the bluetooth and 802.11 antenna cables.

ⓘ When reassembling, the wifi antenna wire routes to the inside of the vent and then over the top of the vent.

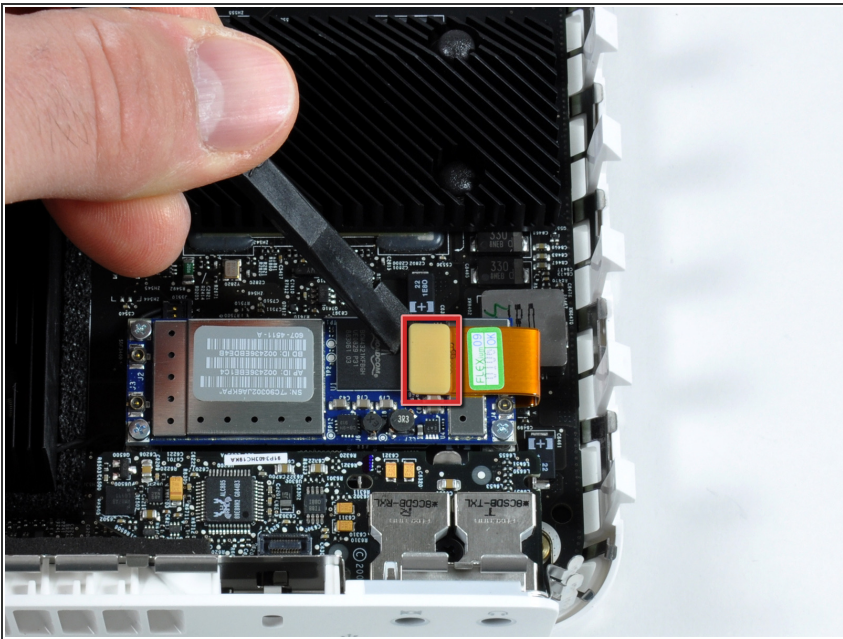
Step 13 — AirPort/Bluetooth Combo Card



- Use the flat end of a spudger to pry the three antenna connectors off the AirPort/Bluetooth combo card.

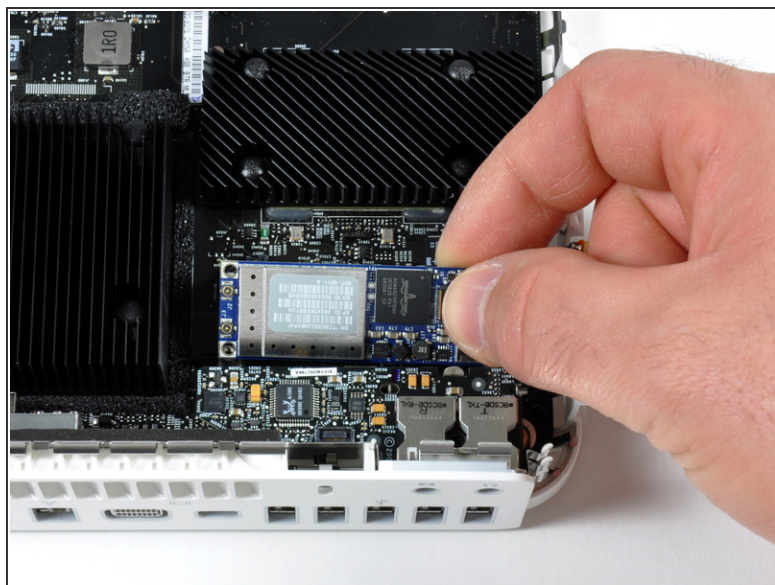
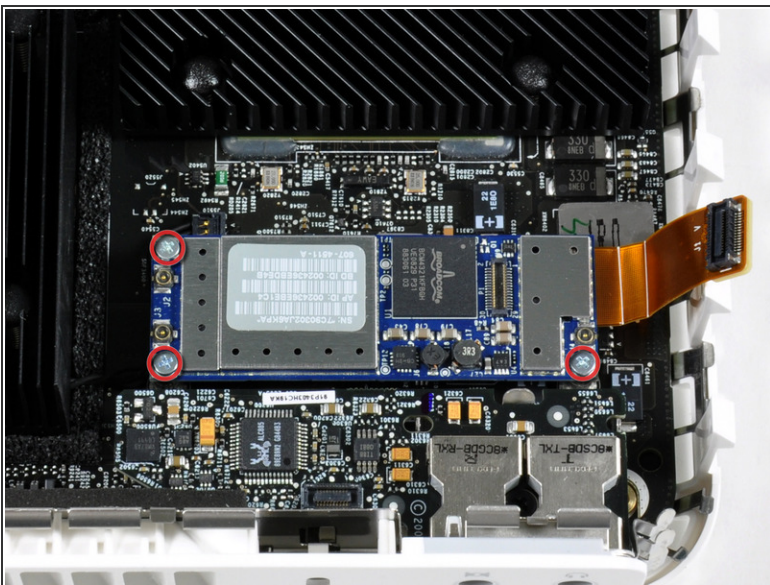
ⓘ The black/blue antenna cable attaches to the AirPort card near the corner of the mini, and the white antenna cable attaches nearest the center of the mini.

Step 14



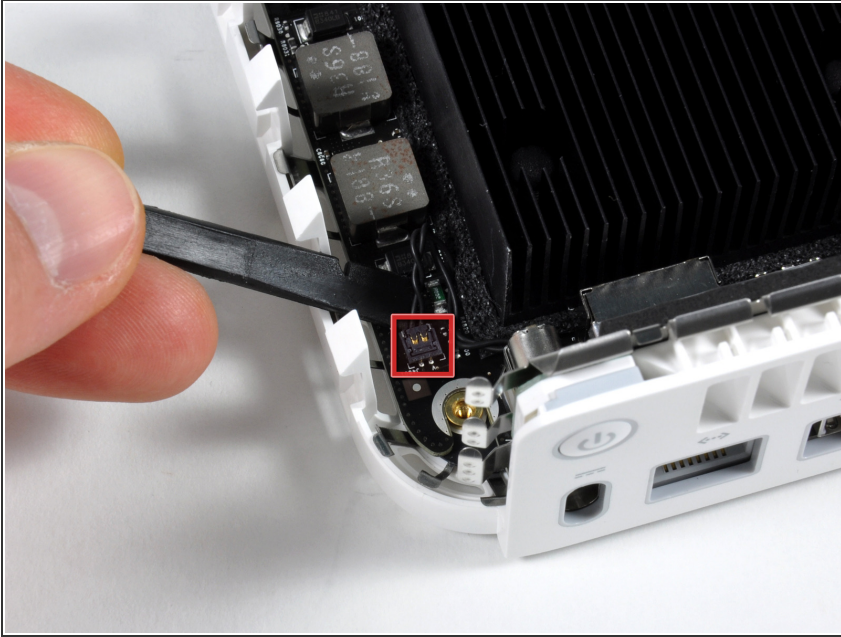
- Use the flat end of a spudger to pry the AirPort/Bluetooth ribbon cable connector up off the combo card.

Step 15



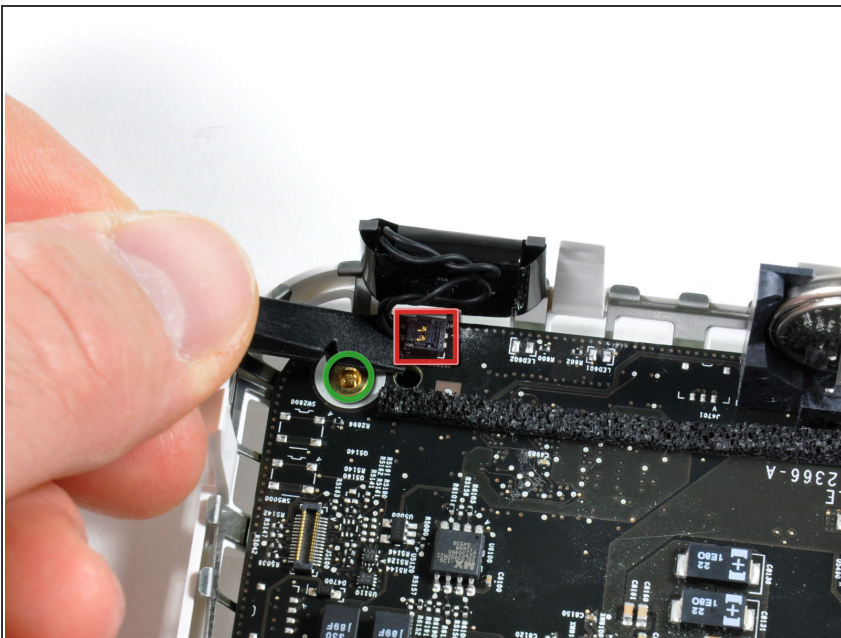
- Remove the three silver Phillips screws securing the combo card to the logic board.
- Lift the combo card out of your mini.

Step 16 — Logic Board



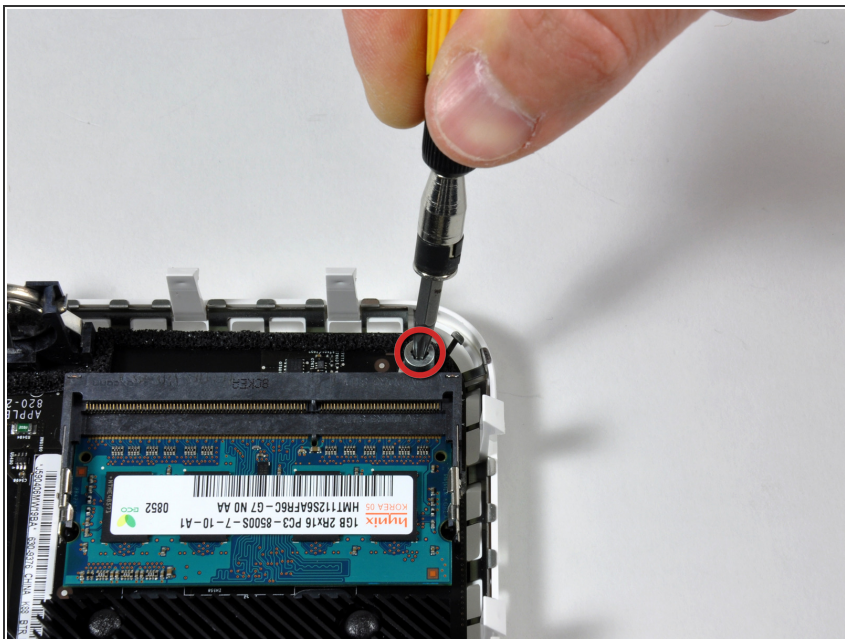
- Use the flat end of a spudger to pry the power button cable connector up off the logic board.

Step 17



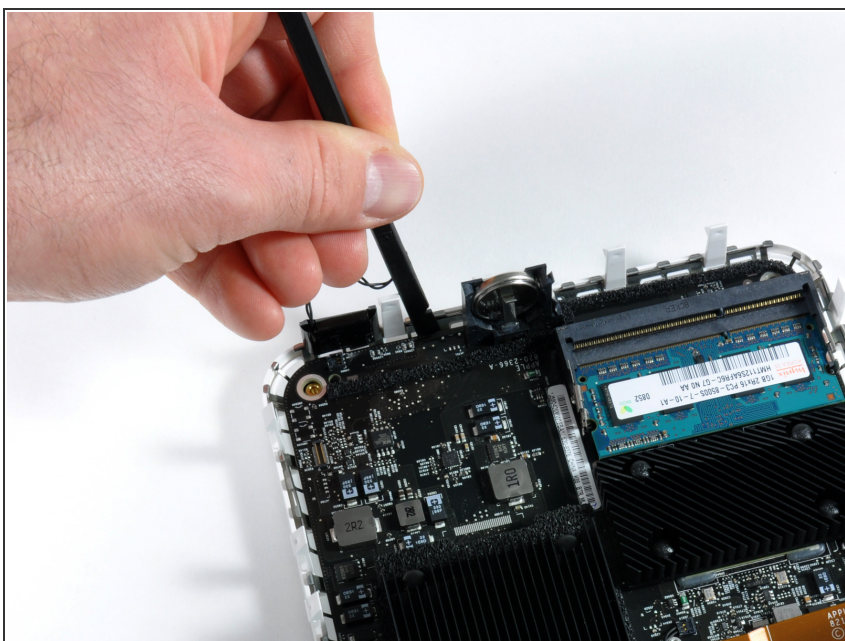
- Use the flat end of a spudger to pry the sleep light cable connector up off the logic board.
- ✦ During reassembly, make sure the cable does not come near the lug on the bottom case (shown in green) to avoid damaging the cable.

Step 18



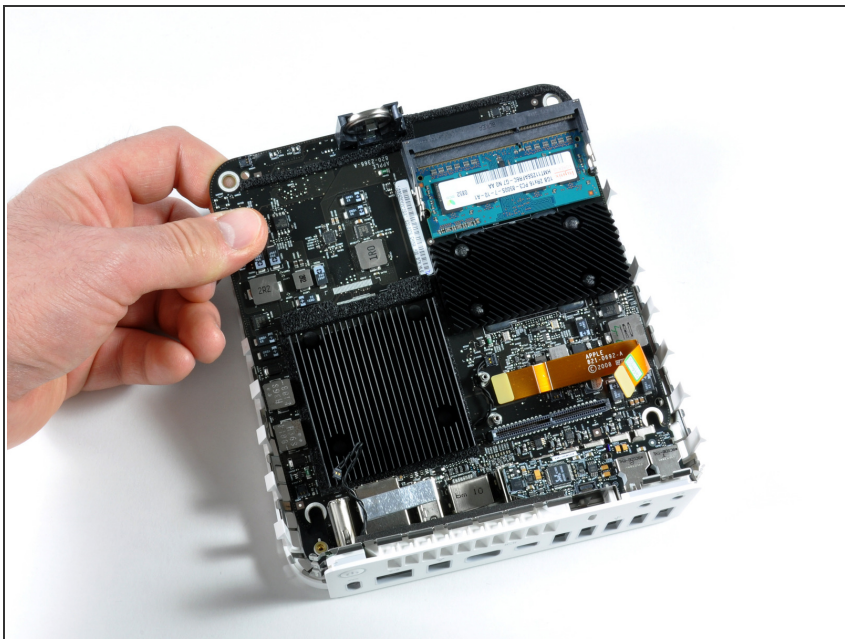
- Remove the single T10 Torx lug next to the RAM sockets on the logic board.

Step 19



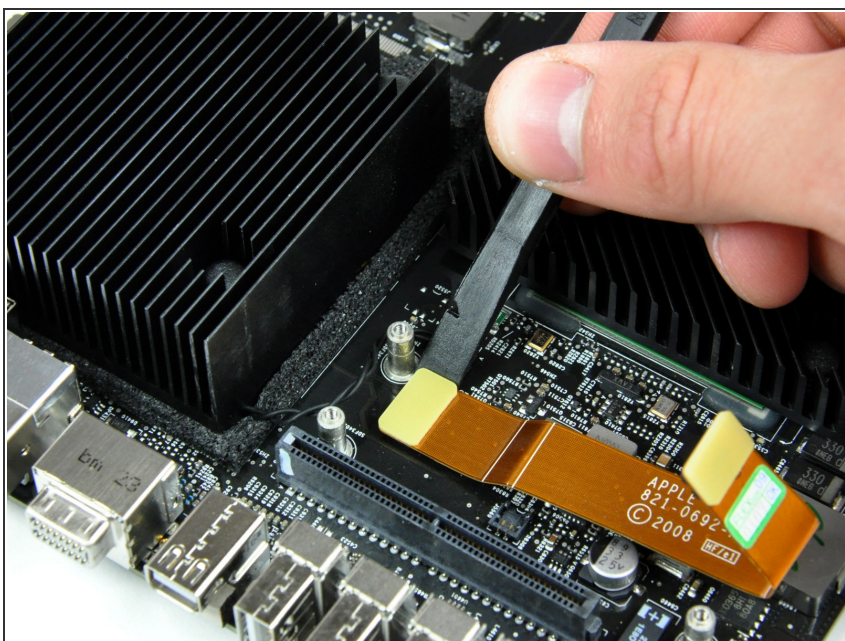
- Use a spudger to lift the free end of the logic board off the bottom housing near the PRAM battery.

Step 20



- While slightly lifting the free end of the board pull it away from the port side of the mini, minding any edges that may get caught.

Step 21 — Logic Board



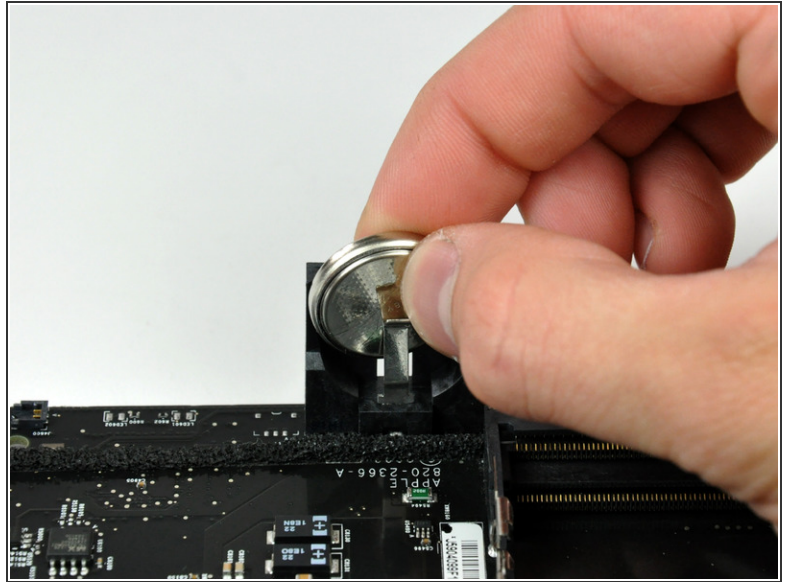
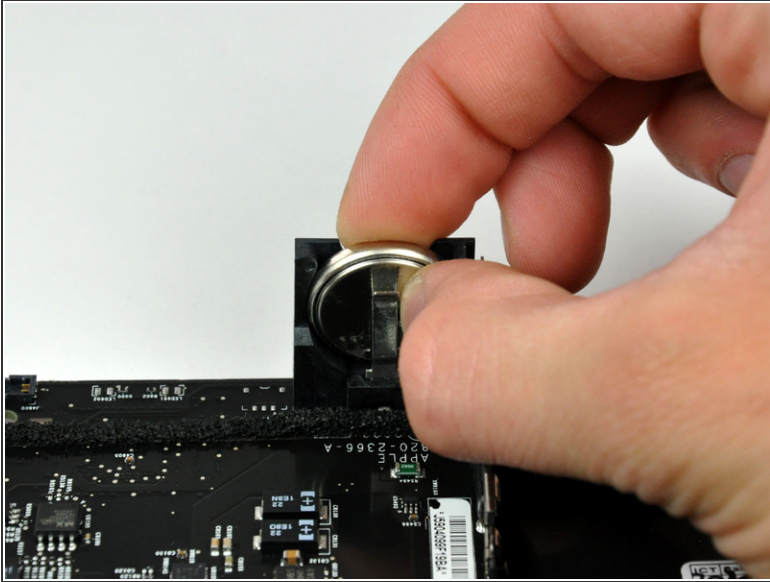
- Use the flat end of a spudger to pry the AirPort/Bluetooth ribbon cable connector up off the logic board and set it aside.

Step 22



- Simultaneously pull the tabs on each side of the RAM chip away from the center of the chip. These tabs lock the chip in place and releasing them will cause the chip to "pop" up.
- Pull the chip directly out from its connector.
- ⓘ If there are two RAM chips installed, repeat the above procedure for the second chip.

Step 23



- Push the PRAM battery toward the center of the logic board and pull it up out of its holder. You'll have to push the battery in further than you'd expect in order to get it to pop free.
- ⚠ Don't bend the metal finger too much or it will break off, requiring a new logic board.
- 🔧 When inserting the new battery, make sure the side with writing along the edges faces the black plastic holder. You should also ensure that the metal connectors make contact with the battery (you can bend them forward if they do not).

To reassemble your device, follow these instructions in reverse order.

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